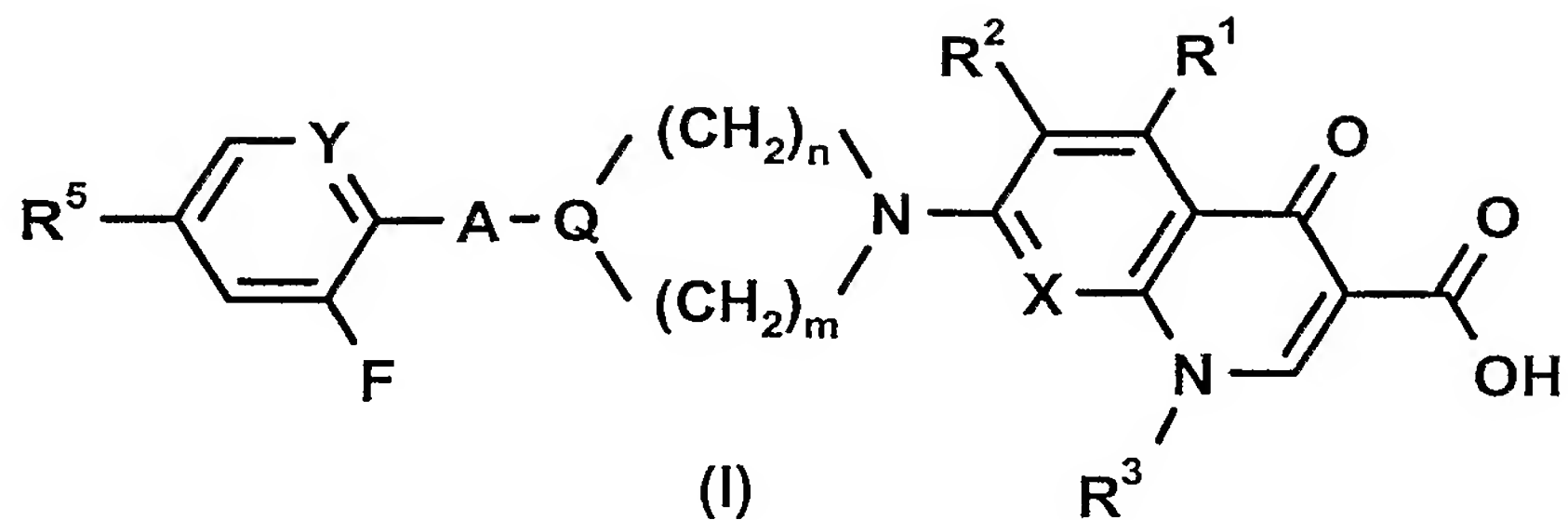


60

Claims

1. Compounds of formula (I)



5 wherein

A is an alkylene group, an alkenylene group, an
alkynylene group, a heteroalkylene group, a
cycloalkylene group, a heterocycloalkylene group, an
10 arylene group or a heteroarylene group all of which
groups may be substituted;

Q is CR⁴ or N;

15 X is CR⁷ or N;

Y is CR⁶ or N;

n is 1, 2 or 3;

20

m is 1, 2 or 3;

R¹ is H, F, Cl, Br, I, OH, NH₂, an alkyl group or a
heteroalkyl group;

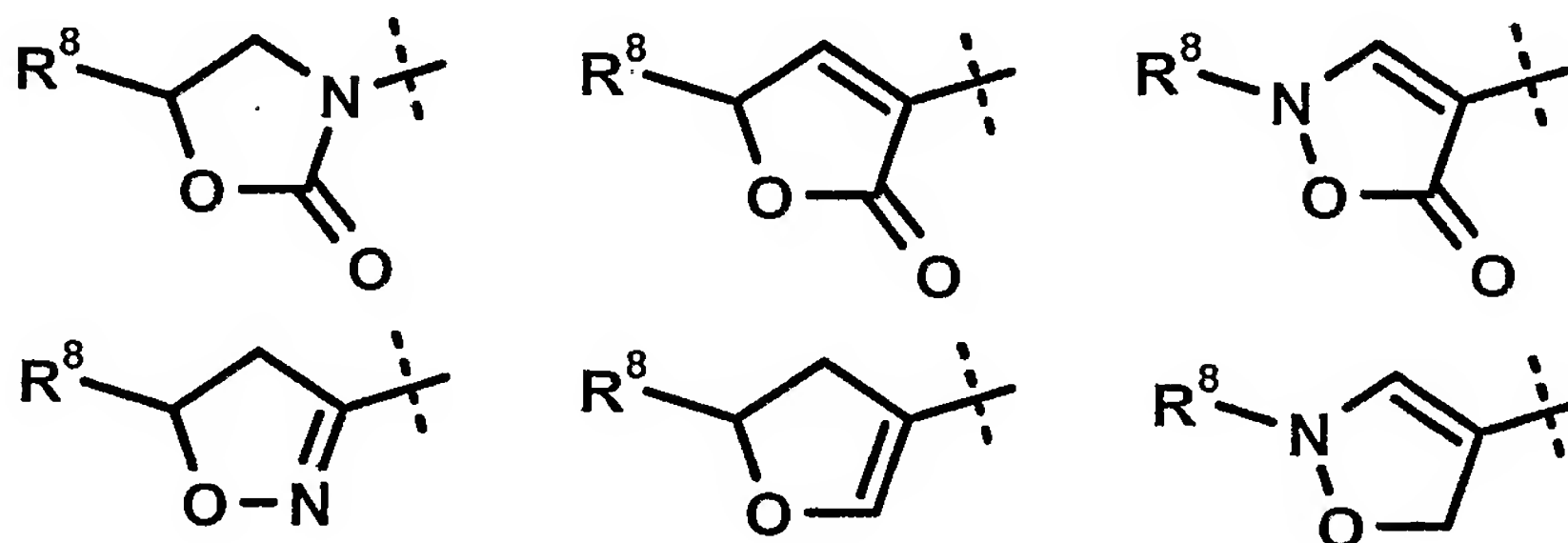
25

R² is H, F or Cl;

R^3 is H, an alkyl group, an alkenyl group, an alkynyl group, a heteroalkyl group, a cycloalkyl group, a heterocycloalkyl group, an aryl group, a heteroaryl group, an alkylaryl group or a heteroarylalkyl group; all of which groups may be substituted with one, two or more halogen atoms or amino groups;

R^4 is hydroxy, a group of formula $OPO_3R^9_2$ or OSO_3R^{10} or a heteroalkyl group carrying at least one OH, NH_2 , SO_3R^{10} , $PO_3R^9_2$ or COOH group or an ester of a naturally occurring amino acid or a derivative thereof, wherein the groups R^9 independently of each other are H, alkyl, cycloalkyl, aryl or aralkyl and wherein R^{10} is H, alkyl, cycloalkyl, aryl or aralkyl;

R^5 is selected from the following groups:



R^6 is H, F, Cl or OMe;

R^7 is H, F, Cl, OH, NH_2 , a substituted or unsubstituted alkyl group or a substituted or unsubstituted heteroalkyl group, or

R^3 and R^7 can be linked via an alkylene, an alkenylene or a heteroalkylene group or be a part of a cycloalkylene or heterocycloalkylene group; in case R^3 is no H and R^7 is no H, F, OH, NH_2 or Cl; and

R⁸ is a C₁₋₆ heteroalkyl, a heteroarylalkyl, a heteroalkylaryl or a heteroalkylheteroaryl group;

5 or a pharmacologically acceptable salt, solvate, hydrate or formulation thereof.

2. Compounds according to claim 1, wherein R¹ is H.

10 3. Compounds according to claim 1 or 2, wherein R² is F or H.

4. Compounds according to any one of claims 1 to 3, wherein R³ is an ethyl, a 2-propyl, a C₃-C₆ cycloalkyl, a phenyl or a pyridyl group; all of which may be substituted with one, two, three or more fluorine atoms or amino groups.

15 5. Compounds according to any one of claims 1 to 4, wherein R³ is a cyclopropyl group.

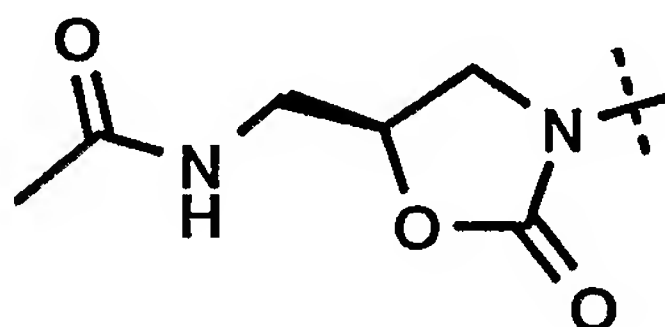
6. Compounds according to any one of claims 1 to 3, wherein R⁷ and R³ together form a bridge of the formula -O-CH₂-N(Me)- or -O-CH₂-CH(Me)-, wherein the preferred stereochemistry at the chiral center is the one giving the (S) configuration in the final compound.

7. Compounds according to any one of claims 1 to 5, wherein R⁷ is H, F, Cl or a methoxy group which may be substituted by one, two or three fluorine atoms.

8. Compounds according to any one of claims 1 to 5, wherein X is N or CH.

9. Compounds according to any one of claims 1 to 8,
wherein R^4 is hydroxy or a group of formula OSO_3H ,
 OPO_3H_2 , $OCH_2OPO_3H_2$, $OCOCH_2CH_2COOH$ or an ester of a
5 naturally occurring amino acid or a derivative
thereof.
10. Compounds according to any one of claims 1 to 9,
wherein R^8 is a group of the formula $-CH_2NHCOCH=CHAr^{yl}$,
10 $-CH_2OHeteroaryl$, $-CH_2NH SO_2Me$, $-CH_2NHCOOMe$, $-CH_2NHCOMe$,
 $-CH_2NHCS_2Me$, $-CH_2NHCSMe$, $-CH_2NHCSNH_2$, $-CH_2NHCSOMe$ or
 $-NHCOMe$.

11. Compounds according to any one of claims 1 to 10,
15 wherein R^5 has the following structure:



12. Compounds according to any one of claims 1 to 11,
wherein Y is CH or N.
- 20 13. Compounds according to any one of claims 1 to 12,
wherein A is C_{1-6} alkylene, C_{2-6} alkenylene, C_{2-6}
alkynylene, C_{1-6} heteroalkylene, cyclopropylene,
epoxide, aziridine, thioepoxide, lactame or lactone,
25 all of which groups may be substituted.
14. Compounds according to any one of claims 1 to 12,
wherein A is a group of formula $-CH_2CH_2-$, $-OCH_2-$,
 $-OCH_2CH_2-$, $-SCH_2-$, $-SCH_2CH_2-$, $-CH=CH-$, $-C\equiv C-$, $-$
30 $CH(OH)CH(OH)-$ or $-CH(NH_2)CH(OH)-$.

15. A mono, di or tri sodium salt of a compound of formula (I) according to any one of claims 1 to 14, or mixtures thereof, especially a mono, di or tri sodium salt of a compound of formula (I), wherein R^4 is OPO_3H_2 or OSO_3H or mixtures thereof.
16. Pharmaceutical compositions containing a compound according to any one of Claims 1 to 15 and optionally carriers and/or adjuvants and/or diluents.
17. Pro-drugs, which contain a compound according to any one of Claims 1 to 16 and at least one pharmacologically acceptable protective group.
18. Use of a compound, a pharmaceutical composition or a pro-drug according to any one of Claims 1 to 17 for the manufacture of medicaments for the treatment of bacterial infections.